

### **REMARKS**

The Applicant thanks the Examiner for the careful attention given the application. Claims 24-40 of the present application are currently pending. In the Office Action, claims 22-24 stand rejected. For the reason set forth below, the Applicant respectfully traverses the rejections and submits that all pending claims are in condition for allowance and allowance of the application is respectfully requested.

Claims 24-3 and 37-40 stand rejected under 35 U.S.C. §102(e) as being anticipated by United States Patent No. 3,657,461, issued to Freeman (hereinafter Freeman). For a reference to anticipate a claim under 35 USC §102 the reference must teach every element of the claimed invention. (see MPEP §2131). Claim 24 of the present application is directed to a pickup for a musical instrument and recites a first wire coil, a second wire coil disposed proximate the first wire coil, a plurality of magnet pole pieces disposed at least partially within both the first wire coil and the second wire coil, and a ferromagnetic plate substantially planar over an entire surface thereof disposed in a substantially magnetically neutral location between the first and second wire coils.

In contrast, Freeman discloses a pickup which includes a magnet 15 forming a rectangular parallelepiped having a divider plate 20 formed of a magnetic material surrounding the parallel faces of the magnet 15. Plates of cardboard or fiber 24 and 25 of a width and length substantially equal to the spacer and divider plate 20 are provided for the top and bottom faces 16 and 17 of the magnet 15. In the space included between the plates 24 and 25 and the divider plate 20 are coils 26 and 27 having a equal wire size and turns. (see Col. 2, l. 28-44). Freeman fails to teach a plurality of magnet pole pieces disposed at least partially within both the first wire coil and the second wire coil as recited in claim 24 of the present application. As such, the Applicant respectfully submits that Freeman fails to teach every element of the claimed invention in accordance with MPEP §2131. For at least the same reasons, the Applicant

respectfully submits that claims 25-33, which depend on claim 24, are also patentable over Freeman.

Claim 37 of the present application is directed to a pickup for a musical instrument and recites a first wire coil, a first bobbin about which the first wire coil is disposed, a second wire coil, a second bobbin about which the second wire coil is disposed, a ferromagnetic plate substantially planar over an entire surface thereof disposed in a substantially magnetically neutral location between the first wire coil and the second wire coil, wherein the first wire coil and the second wire coil are configured so as to create a humbucking effect. In addition, claims 38-40 of the present application each recite a first coil disposed around a first bobbin and a second coil disposed around a second bobbin.

As disclosed above, Freeman discloses a pickup which includes a magnet 15 forming a rectangular parallelepiped having a divider plate 20 formed of a magnetic material surrounding the parallel faces of the magnet 15. Plates of cardboard or fiber 24 and 25 of a width and length substantially equal to the spacer and divider plate 20 are provided for the top and bottom faces 16 and 17 of the magnet 15. In the space included between the plates 24 and 25 and the divider plate 20 are coils 26 and 27 having an equal wire size and turns. (See Col. 2, l. 28-44). Freeman fails to teach a first bobbin and a second bobbin as recited in claims 37-40 of the present application. As such, the Applicant respectfully submits that Freeman fails to teach every element of the claimed invention in accordance with MPEP §2131.

Claims 34-36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Freeman in view of United States Patent No. 5,668,520, issued to Kinman (hereinafter Kinman '520). To establish a prima facie case of obviousness, three basic criteria must be met by the Examiner. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the teachings of the references. Second, there must be a reasonable expectation of success. Finally, the prior art

reference (or references when combined) must teach or suggest all the claim limitations. (see MPEP §2143.03).

Claim 34, which depends on claim 24, recites a first bobbin having two longitudinal sides, the first wire coil being disposed about the first bobbin, a second bobbin having two longitudinal sides, the second wire coil being disposed about the second bobbin, and a pair of steel plates attached to both longitudinal sides of one of the bobbins and extending toward the other bobbin past the ferromagnetic plate and not in physical or electrical contact therewith. In the Office Action, the Examiner states "Kinman shows elements U-shaped shields (21, 40) that appear to perform an equivalent function as that of claim 34" The Applicant respectfully disagrees with the Examiner's assertion.

As shown in Fig. 10 of the present application, the entire lower coil and at least a portion of the upper coil are positioned within the plates. The plates recited in claim 34 serve to concentrate the electromagnetic fields generated by the magnet pole pieces around the coils of the pickup. As such, the concentrated electromagnetic fields around the coils increases the coupling between the electromagnetic sensing of the string vibrations and the voltage produced at the electrical connection of the pickup, which results in a more efficient generation of voltage at the coil ends or the electrical connections of the pickup.

In contrast, the Kinman '520 device includes multiple shields. One shield is positioned about the lower coil while another shield is positioned about the upper coil. Kinman '520 states "[t]he U-shpaed shields 21 and 40 effectively ensure that coil 20 is not subjected to the magnetic field of the pole pieces 34, 35, 36, 37, 38, 39 and the magnetic field is directed towards the strings of the instrument to which the transducer 10 is fitted." (See Col. 4, L. 40-44). As such, the Applicant respectfully submits that the claim 34 teaches away from Kinman '520 insofar as the plates recited in claim 34 concentrate the electromagnetic field generated by the upper and lower coils rather than magnetically isolate the upper and lower coils as taught by Kinman '520.

For at least the reasons stated above, the Applicant respectfully submits that Freeman and Kinman '520 fail to teach or suggest all the limitation of claim 34 of the present application. Moreover, the Applicant respectfully submits that the Examiner has failed to provide a motivation to combine or modify Freeman and Kinman '520 in order to make the rejection as required by MPEP §2143.03.

Furthermore, the Applicant respectfully submits that the Examiner has used impermissible hindsight to recreate the Applicant's invention. "To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." In re Rouffet, 47 USPQ2d 1453 (Fed. Cir.1998) "Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentabilitythe essence of hindsight." In re Dembiczak, 50 USPQ2d 1614 (Fed. Cir.1999) The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's disclosure." In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Thus, "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." In re Fritch, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

In view of the foregoing, Applicant believes the pending claims to be in condition for allowance. Reconsideration and early allowance are respectfully and sincerely solicited.

If it is felt for any reason that direct communication with applicants' attorney would serve to advance prosecution of this case to finality, the Examiner is invited to call the undersigned attorney at the below listed telephone number.

The Commissioner is authorized to charge any fee which may be required in connection with this Amendment to deposit account No. 50-1329.

Respectfully submitted,

Dated: 1/20/04

  
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